

WHAT IS CLAIMED IS:

1. An ink jet type recording apparatus comprising:

a cartridge holder capable of removably attaching an ink cartridge;

a recording head for receiving supply of ink from the ink cartridge attached to the cartridge holder and discharging ink droplets based on print control data, thereby printing an image on a recording medium, wherein:

in case in which the ink cartridge is attached to the cartridge holder, it is decided whether or not ink type information to be used in the recording apparatus has already been set, and in case in which it is decided that the ink type information has not yet been set, ink type information is set so that type of ink accommodated in the attached ink cartridge can be used.

2. The ink jet type recording apparatus according to claim 1, wherein the ink cartridge to be used in the recording apparatus includes an identifying system indicative of the type of ink accommodated in the ink cartridge, and the recording apparatus to which the ink cartridge is to be attached includes an information obtaining system capable of obtaining ink type information from the identifying system.

3. The ink jet type recording apparatus according to claim 2, wherein the ink cartridge includes a semiconductor storage system, storing information indicative of the ink type, as the identifying system, and the recording apparatus, to which the

ink cartridge is to be attached, includes, as the information obtaining system, an information reading system capable of reading the ink type information from the semiconductor storage system.

4. The ink jet type recording apparatus according to any  
5 of claims 1 to 3, further comprising:

a matching deciding system for deciding whether or not a matching is available between set ink type information and ink type information obtained from a newly attached ink cartridge in case in which ink type information has already been set,

10 wherein operation of the recording apparatus is inhibited if the matching deciding system decides that the matching is unavailable.

5. The ink jet type recording apparatus according to any  
of claims 1 to 3, further comprising:

15 a matching deciding system for deciding whether or not a matching is available between set ink type information and ink type information obtained from a newly attached ink cartridge in case in which ink type information has already been set,

20 wherein an alarm is given if the matching deciding system decides that the matching is unavailable.

6. The ink jet type recording apparatus according to any  
of claims 1 to 3, wherein an operation sequence for the recording apparatus corresponding to set ink type information is set.

7. The ink jet type recording apparatus according to any  
25 of claims 1 to 3, wherein a driving condition for a recording

head corresponding to set ink type information is set.

8. The ink jet type recording apparatus according to any of claims 1 to 3, wherein an image processing method corresponding to set ink type information is set.

5 9. The ink jet type recording apparatus according to any of claims 1 to 3, wherein only when the recording apparatus obtains ink type setting permission information from the ink cartridge attached to the recording apparatus, the ink type information is set.

10 10. The ink jet type recording apparatus according to claim 9, wherein the ink type setting permission information is stored in the semiconductor storage system mounted on the ink cartridge, and the ink type setting permission information is inhibited from being read from the semiconductor storage system or is erased  
15 from the semiconductor storage system in response to a command sent from the recording apparatus after the recording apparatus once reads the ink type setting permission information.

11. A method of setting ink type information in an ink jet type recording apparatus comprising a cartridge holder capable  
20 of removably attaching ink cartridges and a recording head for receiving supply of ink from the ink cartridges attached to the cartridge holder and discharging ink droplets based on print control data, thereby printing an image on a recording medium, comprising:

25 an ink type information obtaining step of obtaining ink

type information from each of the ink cartridges attached to the cartridge holder;

an ink type information comparing step of deciding whether or not all the ink type information obtained at the ink type information acquiring step are identical;

a setting ascertaining step of ascertaining whether or not ink type information about ink to be used in the recording apparatus has already been set; and

an ink type information setting step of setting ink corresponding to the obtained ink type information as ink that can be used in the recording apparatus, if it is decided that the ink type information has not yet set at the setting ascertaining step and it is decided that all the ink type information sent from the ink cartridges are identical at the ink type information comparing step.

12. The method of setting ink type information in an ink jet type recording apparatus according to claim 11, wherein an attachment state deciding step of deciding whether or not all the ink cartridges are attached to the cartridge holder is executed before execution of the ink type information obtaining step, and the ink type information obtaining step is executed if it is decided that all the ink cartridges are attached at the attachment state deciding step.

13. The method of setting ink type information in an ink jet type recording apparatus according to claim 11 or 12, wherein

the ink type information setting step is executed only when it is decided that the ink type has not yet set at the setting ascertaining step and ink type setting permission information is obtained from the attached ink cartridge.

5        14. An ink cartridge holding at least ink type information indicative of an ink type of accumulated ink and ink type setting permission information for permitting a recording apparatus to set an ink type by utilizing the ink type information,

10        wherein the ink type information and the ink type setting permission information are provided to the recording apparatus in a state of attachment to the recording apparatus, and an ink type to be used in the recording apparatus can be set on a condition that the ink type setting permission information is obtained in the recording apparatus.

15        15. The ink cartridge according to claim 14, wherein the ink type information and the ink type setting permission information are stored in a semiconductor storage system mounted on the ink cartridge, and the ink type information and the ink type setting permission information can be provided to the  
20        recording apparatus in a state of attachment to the recording apparatus.

25        16. The ink cartridge according to claim 15, wherein the ink type setting permission information stored in the semiconductor storage system can bring a state in which the ink type setting permission information cannot be reread or the ink type setting

permission information can be erased upon receipt of a command from the recording apparatus.

17. The ink cartridge according to any of claims 14 to 16, wherein the ink cartridge including the ink type setting permission information has such a configuration as to be packed and shipped together with the recording apparatus.

18. A recording apparatus comprising:

an ink cartridge holder adapted to removably attach ink cartridges thereto to communicate with the ink cartridges for data transfer to and from the ink cartridges;

a recording head mounted on the ink cartridge holder;

a CPU operatively connected to the recording head and communicating with the holder;

a printer memory that stores therein operation sequence condition, recording head driving condition and image processing condition each being stored in an ink type by ink type basis, the printer memory having a memory area into which a specific one of ink types, to be used in the recording apparatus can be written, and the printer memory storing therein a program to be executed for writing the specific ink type when all of the attached ink cartridges contain ink of the same ink type, and when the specific ink type has not yet been written in the printer memory, and for selecting the operation sequence condition, recording head driving condition and image processing condition corresponding to the written ink type.

19. An ink cartridge comprising:

an ink container containing ink therein;

an ink cartridge memory storing therein ink type information indicative of a type of the ink, and ink type setting permission information specifying that the ink cartridge constitutes an ink cartridge for set up, wherein the ink type setting permission information is written in a memory area of the ink cartridge memory, from which the ink type setting permission information is inhibited from being read again or is erased once the ink type setting permission information is read and the ink cartridge is used as the set-up ink cartridge.

20. A memory medium storing therein a program to be executed for writing a specific ink type into a memory area of a printer memory when all of ink cartridges attached to a printer contain ink of the same ink type, and when the specific ink type has not yet been written in the memory area of the printer memory, and for selecting operation sequence condition, recording head driving condition and image processing condition corresponding to the written ink type.